



U.S. Department of Defense and U.S. Fish & Wildlife Service

Protecting Endangered Species on Military Lands

Although the U.S. Fish and Wildlife Service (FWS) and the National Marine Fisheries Service (NMFS) have the lead for guiding implementation of the Endangered Species Act (ESA), the ESA states that *all* Federal agencies are responsible for conserving endangered and threatened species as part of their normal activities. Department of Defense (DoD) agencies play a vital role in the conservation of many rare plant and animal species. DoD manages nearly 25 million acres on approximately 425 major military installations throughout the United States. Access limitations due to security and safety considerations have sheltered many military lands from development pressures and large-scale habitat loss. Some of the finest remaining examples of rare wildlife habitats are found within these lands. As a result, at least 300 species listed as threatened or endangered occur on DoD-managed lands.

Through open communication and cooperation, FWS has collaborated to establish successful partnerships with DoD and its associated military services. These partnerships have enabled the military to carry out its mission on its bases, while ensuring the continued use of sound science in the conservation and protection of threatened and endangered species. The following are examples of such partnerships:

Endangered Species at Eglin Air Force Base (AFB)

Widely recognized as a leader, Eglin AFB has successfully implemented a model for ecosystem management in the Florida panhandle that has increased red-cockaded woodpecker numbers on the base. Through stream and riparian restoration efforts, Eglin is also working to do the same for the Okaloosa darter. By recovering listed species and implementing an adaptive approach to ecosystem management, the Base has increased training mission flexibility while working in harmony within the purposes of the ESA.

Least Tern and Western Snowy Plover Management at Naval Amphibious Base, Coronado, CA

Much of the California least tern habitat at



Biologists from the Arizona Fish and Game Department, Cabeza Prieta National Wildlife Refuge, and the U.S. Marine Corps repeatedly carried containers of water to a remote site three miles from the nearest road in mid-summer to see if the Sonoran pronghorns would drink it. They did.

Arizona Game and Fish Department photo

Coronado lies at the center of the Navy's training grounds. Protecting these areas from disturbance during the nesting season is a continuing challenge. Biologists from both agencies have worked together for over 10 years to research, monitor, and improve these sites. Since 1993, the number of tern nesting sites at Coronado has increased 600 percent, while the plover nests have increased by over 300 percent. As a result, FWS has been able to revise restrictions on military use of tern sites.

Biodiversity Management on the Barry M. Goldwater Range

The U.S. Marine Corps and Air Force are working in partnership with FWS, The Nature Conservancy, Arizona Game and Fish Department, and the Bureau of Land Management to protect and recover the Sonoran pronghorn population. They are taking a comprehensive approach to planning and implementing management tools that promote Sonoran Desert ecoregional biodiversity (see photo above).

Air National Guard Rushes to Save Knieskern's Beaked Rush

A survey of rare plants conducted in autumn 2001 as part of the Air National Guard's (ANG) ongoing efforts to monitor threatened and endangered species on its bases and ranges revealed extensive populations of the threatened Knieskern's beaked-rush at Warren Grove ANG Range, located in the pinelands of southern New Jersey. Consequently, the New Jersey ANG is working in cooperation with FWS and plant ecologists from Drexel University to 1) develop a complete inventory of species on the 10,000-acre range; 2) assess the impacts of range operations and natural resources management programs, in particular, controlled burning; and 3) develop a long-term management strategy for protection of this rare plant.

The Palos Verdes Blue Butterfly

The Defense Logistic Agency's Defense Fuel Support Point (DFSP) in San Pedro, California, continues its efforts to protect

the federally endangered Palos Verdes blue butterfly. Conservation efforts include captive breeding of the butterfly, flight season surveys to assess the status of the butterfly population at DFSP, and restoration of native vegetation to enhance available butterfly habitat. All aspects of the Palos Verdes blue butterfly program on DFSP are coordinated with FWS. A collaborative working relationship between FWS and DoD personnel has facilitated the successful integration of DFSP's military mission with natural resources management.

A Partnership for Peregrine Falcons

Since the early 1980s, the Air Force has worked with FWS to minimize or eliminate impacts of its activities on peregrine falcons in Alaska. Through interagency consultation, the Air Force and FWS identified major peregrine nesting areas in proposed Air Force training locations. By designating known nests as simulated "threat emitter sites" (areas that pilots must avoid as part of their routine training program), the Air Force has continued realistic training while simultaneously protecting nesting peregrine falcons. This species is now recovered.

Seabees Renovate Habitat for Endangered Waterbirds

Recently, a Navy team created critical mudflat habitats for endangered waterbirds on the shores of Pearl Harbor. This action also provided habitat for real-life training for the Seabees and demonstrated the Navy's strong partnership with FWS's Pearl Harbor National Wildlife Refuge.



The Mokapu Peninsula component of Marine Corps Base Hawaii on O'ahu provides a safe haven for four endangered Hawaiian waterbirds. The annual "mud ops" maneuvers by Marine Corps assault amphibian vehicles break open thick mats of invasive plants and improve the birds' nesting and feeding opportunities while providing a hard-to-achieve training opportunity.

U.S. Marine Corps photo

On Guard for Endangered Plants

The Hawaii National Guard is carrying out realistic military training on sites throughout the Hawaiian Islands, while simultaneously promoting sustainable practices, and conserving endangered plant and animal species. About 3,500 native and endangered plants have been reared at the Kanaio Training Area.

Terns Share Naval Surface Warfare Center

The Naval Surface Warfare Center's Coastal Systems Station (CSS) at Panama City, Florida, promotes a natural resources program that balances its military mission with conservation issues. Currently, CSS is implementing proactive conservation and protection measures for the state-listed least tern hoping to preclude a federal listing.

Conserving Species at Fort Bragg

Fort Bragg in North Carolina is home to a number of rare plant and animal species that evolved in a fire-maintained, longleaf pine ecosystem. Frequent fires caused by training in artillery impact areas, coupled with an aggressive prescribed burning program, serve to restore and maintain habitat for several endangered species, including the red-cockaded woodpecker.

Working Together for Sumac Recovery

The FWS Chesapeake Bay Field Office has worked closely with Fort Pickett near Blackstone, VA, in assessing the effects of military training operations on endangered Michaux's sumac colonies. FWS has encouraged the Army to maintain existing disturbance levels where expansion of existing colonies or establishment of new colonies are likely.

A Navy Partnership in Southern California

Since 1994, the Carlsbad, CA, FWS Field Office and the Natural Resources Management Branch of the Navy's Southwest Division Facilities Engineering Command in San Diego, CA, have partnered to resolve problems that may arise between FWS and Navy in ESA implementation. The partnership has produced many successes. For example, in 1995, personnel from the Seal Beach Naval Weapons Station and FWS built 30 new artificial nesting platforms to increase populations of the endangered light-footed clapper rail. By resolving issues early, the partners minimize delays in military projects and activities, and are better able to address as well as avoid creating additional threatened and endangered species problems.



Krishna Costello of the Fish and Wildlife Service thanks Lieutenant Ilina, a tank commander at Fort Hood, for his help in conserving the rare birds living at the base.

USFWS photo

Birds of Fort Hood

Fort Hood in Texas entered into an interagency consultation with FWS to ensure that its Base activities would not jeopardize endangered neotropical migratory songbirds. Fort Hood staff have produced innovative research and management strategies for endangered songbirds that may be applicable region-wide.

Conserving Wintering Habitat at Fort Riley

In Kansas, Fort Riley conserves bald eagle winter habitat and controls human intrusion into areas where eagles live. The results have been dramatic. In 1994, a one-day eagle count totaled 64 birds. By 1999, that number had increased to 388.

Good Coordination and Communication

By coordinating our efforts and communicating regularly, FWS and DoD are identifying and resolving problems early. These are the keys to a successful partnership—locally, regionally, and nationally. Together, we are committed to working in the best interests of the Nation's security and the conservation of our precious wildlife resources.

Program Contacts:

*Conservation Team Leader, Office of the Deputy Under Secretary of Defense (Installations and Environment), 703-604-0524
<http://denix.osd.mil/conservation>*

*Chief, Division of Partnerships and Outreach, Endangered Species Program, U.S. Fish and Wildlife Service, 703-358-2390
<http://endangered.fws.gov>*

September 2002